

**DEPARTMENT OF TRANSPORTATION**

DIVISION OF ENGINEERING SERVICES

Office of Structural Materials

Quality Assurance and Source Inspection



Bay Area Branch  
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Contract #: 04-0120F4Cty: SF/ALA Rte: 80 PM: 13.2/13.9File #: 69.28**WELDING INSPECTION REPORT****Resident Engineer:** Pursell, Gary**Address:** 333 Burma Road**City:** Oakland, CA 94607**Report No:** WIR-014257**Date Inspected:** 18-Apr-2010**Project Name:** SAS Superstructure**OSM Arrival Time:** 700**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**OSM Departure Time:** 1900**Contractor:** Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island **Location:** Shanghai, China**CWI Name:** Chen Xi**CWI Present:** Yes No**Inspected CWI report:** Yes No N/A**Rod Oven in Use:** Yes No N/A**Electrode to specification:** Yes No N/A**Weld Procedures Followed:** Yes No N/A**Qualified Welders:** Yes No N/A**Verified Joint Fit-up:** Yes No N/A**Approved Drawings:** Yes No N/A**Approved WPS:** Yes No N/A**Delayed / Cancelled:** Yes No N/A**Bridge No:** 34-0006**Component:** Orthotropic Box Girder (OBG)**Summary of Items Observed:**

On this date Caltrans Office of Structural Material (OSM) Quality Assurance (QA) Inspector, D.Sukanthan was present during the time noted above for observations relative to the work being performed.

OBG # CROSSBEAM CB 09

This QA inspector received ZPMC Non Destructive Testing (NDT) notification 005536 to perform Magnetic Particle Testing (MT) of approximately 15% of the area previously tested and accepted by ZPMC Quality Control Personnel. This QA Inspector generated a Magnetic Particle Test report for this date. The member is identified as Crossbeam CB 9. The weld tested is identified as follows:

(CB202A-009-002,008)

(CB202G-021-091,092,143,161,142,160,029,030,031,032,145,163,117,118)

(CB202G-022-091,092,143,161,142,160,029,030,031,032,145,163,117,118)

(CB202G-023-091,092,143,161,142,160,029,030,031,032,145,163,117,118)

(CB202G-024-091,092,143,161,142,160,029,030,031,032,145,163,117,118)

(FB204-021-055,056,013,014,016, 017)

(FB204-022-055,056,013,014,016, 017)

(FB204-023-055,056,013,014,016, 017)

(FB204-024-055,056,013,014,016, 017)

(SP203A-009-009,010,011,012,013)

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## WELDING INSPECTION REPORT

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This QA Inspector randomly observed the following work in progress:

OBG # CROSSBEAM CB 17

During random in-process observations Crossbeam CB17 located in OBG Bay # 8, this Quality Assurance inspector (QA) discovered that ZPMC welding personnel were buttering (build up with weld) without an approved repair Welding Procedure Specification (WPS) available for this QA to review for compliance. The buttering was being performed on the inside edge of the stiffener pass through slots on the corner sections of the internal floor beams to compensate for a fillet weld root opening in excess of 5mm. The subassembly members affected are identified as FB3057-054, FB3057-055, and FB3057-056. This QA informed ZPMC QA identified as Zhang wei of this issue and that an incident report would be generated. See attached pictures.

Unless otherwise noted, all work observed on this date appeared to generally comply with applicable contract documents.



### Summary of Conversations:

As mention above

### Comments

This report is for the purpose of determining conformance with the contract documents and is not for the purpose of making repair or fit for purpose recommendations. Should you require recommendations concerning repairs or remedial efforts please contact Eric Tsang 150-00422372, who represents the Office of Structural Materials for your project.

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**Inspected By:** Sukanthan,Dhanasingh

Quality Assurance Inspector

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**Reviewed By:** Hall,Steven

QA Reviewer